Stuff for Monday, April 2, 2012

- Please turn in PS#2 up front and pick up PS#1 (55 + 10 bonus)

- Quiz 1 returned up front. Class average: 8/10

    - Pretty good explanations in general
    - $n\lambda/2$ versus $(n + 1/2)\lambda$

- Quiz 2 will be on *Thursday*.

- Warm-ups: Random questions on next page

    - Resolution problem: $\theta_{\mathrm{resolve}} = \sin^{-1}(1.22\lambda/a)$

- Photoelectric effect summary points

    - photon model: $E = hf = hc/\lambda$ with $hc \approx 1240\,\mathrm{eV \cdot nm}$
    - electron kinetic energy

    $$K = hf - W = hc/\lambda - W$$

    - W is the "work function" $\implies$ energy cost to free e^-

Flying Circus of Physics random questions

Why is the foghorn in the picture designed and oriented that way? (The rectangular opening is oriented with the longer side vertically.)

- How do cheerleaders' megaphones work?